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PATENT APPLICATION  
Mo-4532  
LeA 31,223



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICATION OF	)	
FRANK RICHTER ET AL	)	GROUP NO.:1711 ✓
SERIAL NUMBER: 08/713,905	)	
FILED: SEPTEMBER 13, 1996	)	EXAMINER: R. A. SERGENT
TITLE: PROCESS FOR THE PRODUCTION	)	
OF ETHER ISOCYANATES	)	

**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The Examiner's Answer dated November 20, 2003 has been received and its contents noted. The following is in response thereto.

I hereby certify that this correspondence is being deposited  
with the United States Postal Service as first class mail in an  
enveloped addressed to: Commissioner for Patents,  
Alexandria, VA 22313-1450

01/20/04

Date

Lyndanne M. Whalen, Reg. No. 29,457

Name of applicant, assignee or Registered Representative



Signature

January 20, 2004

Date

## **REMARKS**

Appellants' claimed subject matter is disclosed in their specification.

Appellants maintain that the hydrolyzable chlorine contents required by their claims are supported by: (a) the hydrolyzable chlorine contents reported in their Examples (specifically, 43 ppm [Example 1], 48 ppm [Example 2], 34 ppm [Example 3], 24 ppm [Example 4], and 44 ppm [Example 5]); and (b) the teaching that pure product (i.e., a product which by definition contains no impurity such as hydrolyzable chlorine) can be obtained.

The Examiner has argued that the teaching regarding "purity" in Appellants' specification does not support Appellants' position because it "lacks any specifics with respect to controlling hydrolyzable chlorine content." (at page 4, lines 7-8 of the Examiner's Answer)

Appellants fail to appreciate what further specifics the Examiner believes to be necessary.

The teachings of a specification must be read in their entirety and in context. The Examples given in the specification clearly illustrate the maximum hydrolyzable chlorine content required by the claims. The specification teaches that the hydrolyzable chlorine content can be even further reduced by standard purification methods.

One skilled in the art reading Appellants' specification, particularly the Examples and its teachings with respect to subsequent purification, would readily appreciate that Appellants possessed the ether (poly)isocyanates having "a hydrolyzable chlorine content less than or equal to 48 ppm" and "a hydrolyzable chlorine content of no more than 43 ppm" at the time the present application was filed.

Appellants therefore continue to maintain that their Claims 1 through 4 do satisfy the description requirement of 35 U.S.C. § 112, first paragraph.

The Declaration of Dr. Herbert Stutz does rebut the Examiner's construction of the prior art.

At page 5, lines 10-14 of his Answer, the Examiner argues that the passages cited in Dr. Stutz' Declaration do not "closely relate to aspects of vapor phase phosgenation" and do not "establish a clear correlation between the claimed subject matter and the subject matter of the declaration."

Appellants respectfully disagree.

The passages quoted in Dr. Stutz' Declaration are directed to the known problem encountered with phosgenation of ether amines, i.e., replacement of the oxygen with chlorine to such an extent that high yields of ether polyisocyanate could not be obtained.

In view of this of this known problem, one skilled in the art, such as Dr. Stutz, would have expected to encounter this problem in phosgenation of ether amines, particularly in a gas phase phosgenation process. Dr. Stutz has clearly stated this in his Declaration.

Dr. Stutz' expectation was obviously shared by others as is evident from the teaching of Lehmann et al that it is known that diamines containing ether groups "upon phosgenation yield mainly ether cleavage products." (at column 1, lines 16-18 of U.S. 3,267,122)


Despite this known and expected problem, however, the Examiner has concluded that one skilled in the art would somehow expect to obtain high yields of ether (poly)isocyanates when an ether (poly)amine is phosgenated in the gas phase.

What is the basis for the Examiner's conclusion? Clearly not the teachings of the primary reference, Lehmann et al, which are contrary to the Examiner's position. The secondary references? Two of those references don't even mention ether (poly)isocyanates (Joulak et al and Bischof et al). The remaining secondary reference (Biskup et al) teaches gas phase phosgenation of aromatic amines which "may" contain ether groups **but** does **not** teach or suggest that those ether groups "survive" phosgenation to such a degree that a high yield of ether (poly)isocyanate having a hydrolyzable chlorine content of 48 ppm or less is obtained.

Appellants maintain that the Examiner's "construction" of the teachings of the cited prior art does not establish a proper *prima facie* case of obviousness with respect to Appellants' invention as claimed in Claims 1 and 2.

For these reasons and those discussed in their Brief, Appellants continue to maintain that each of the Examiner's rejections is in error and respectfully request that each of these rejections be reversed and that Claims 1-4 be allowed.

Respectfully submitted,

By   
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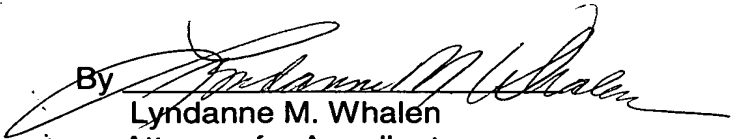
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